

UNITED STATES PATENT OFFICE

2,013,865

FIBROUS BODIED ARTICLES AND METHOD
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Application May 19, 1934, Serial No. 726,610

19 Claims. (Cl. 18—59)

The present invention relates to the producing of articles the bodies of which are of fibrous material and are so provided with a thermoplastic substance of a resinous base as to present in the 5 produced articles given and predetermined physical properties and characteristics with or without decorative or artistic effects, and among the objects of the invention is to provide novel articles of the character mentioned above and a novel 10 process of producing the same.

The method or process of this invention generally comprises providing the article body with a thermoplastic substances having the characteristics and properties later more fully described, 15 with or without decorative or ornamental means or media, and subjecting the aggregate to heat and pressure to effect the finished article.

The thermoplastic substance referred to is in the class of synthetic resinous compounds known 20 as the vinyl resins of the polymerization group and more particularly those which are permanently thermoplastic, characterized by the bond group or radical —CH:CH_2 , and which are insoluble in most all known solvents, particularly 25 the hydrocarbon solvents, except the solvents of the ester type or the higher ketones, such as hexone and butyrene. In other words, the substance used in this invention is chemically inert to the extent indicated above and hence is im- 30 pervious to and proof against moisture, water, acids, alkalies, alcohols, oils, greases, fats, and the like. In its normally pure state it is odorless, tasteless, colorless, and transparent. It is also non-inflammable. It may be given any color or 35 made translucent or opaque as desired by the incorporating or mixing therewith of dyes, pigments, fillers, or the like. It is also tough, durable and resilient. It also has a very strong bonding or adhesive property. If a pliant char- 40 acteristic be desired, a plasticizer may be added to it to the extent of the pliability required. It may be applied either in liquid or solid form or both. In the solid or non-liquid state it may be in any desired form, such as sheets, films, 45 strips, bars, rods and the like. When using this substance in liquid form, acetone preferably is used as the solvent but it is to be understood other solvents as mentioned above may be used without affecting the idea of invention herein 50 disclosed.

The body of the article produced is preferably of fibrous material, such as pulp or the like. In one form, the body is made in any desired and given shape or form by the accretion and inte- 55 gration of suspended fibres, such as pulp fibres in

a pulp bath, in the form of a stratum of any desired thickness upon the surface of a contoured porous former or molding die by the action of suction within the die or pressure on the bath, so as to cause the liquid of the bath to pass 5 through the pores or perforations of the die and leave an accreted and integrated layer or stratum of the fibrous material on the contoured surface of the molding die. The stratum or blank may then be dried and later treated with the sub- 10 stance above mentioned in a manner later described.

Another form of body may be made by the assembly of sheet material, such as cardboard, pasteboard, fibre sheets, fibre boards, or the like, 15 into the desired shape, and then providing the assembly with the thermoplastic substance mentioned above, preferably with decorative means, such as wood veneer, fabric sheets with or without designs, lace, pictures on sheet material 20 whether of paper or otherwise, metal foil in any configuration, paper with or without designs or decoration, overlays, inlays, cameo and intaglio effects, etc., the thermoplastic substance men- 25 tioned acting as a strong bond or adhesive to unite and join the parts together and as a covering or surfacing means as more fully later described.

In still another form the body is made by the developing and joining or the developing, bend- 30 ing and joining of fibrous sheets, such as fibre board, binder's board and the like, into the desired shape, such as a cabinet, box and the like, and the applying thereto and uniting therewith 35 of the thermoplastic substance mentioned with or without but preferably with decorative means, such as wood veneer decorative sheets, dyed or pigmented coverings of the thermoplastic substance mentioned, with or without other decorative 40 means, such as wood veneer, design sheets and the like, the coverings and decorative means joining at or being bent over the corners to provide for smooth continuity from a surface to another in different planes. 45

Another object of the invention is to provide a novel method of producing inlays or the like and a novel article having such inlays and similar decorative features.

A further form of body may be made by the 50 shaping, as by pressure or otherwise, of a piece or sheet of fibrous material, such as manila sheet or paper, cardboard, pasteboard, fibre boards, and the like, and covering or surfacing the shaped body with the thermoplastic substance men- 55